Windows®. Life without Walls™.
Fujitsu recommends Windows 7.

# Data Sheet
# Fujitsu CELSIUS W510 Workstation

## Performance that boosts your productivity

If you need a powerful entry-level workstation, Fujitsu's CELSIUS W510 is the ideal choice. Comprehensive ISV certifications ensure your professional applications run smoothly. Your workplace is silent and user-friendly thanks to best-in-class noise emissions. Plus, the cold-plug access at the front of the workstation lets you expand your storage capacity or change drives for enhanced working flexibility.

**Extremely powerful workstations**
Get more done in less time
- The fastest available processors, graphics cards and hard disk drives

**Noise-reduced system**
Silent working enviroment
- Optimized thermal management, low-noise chassis and silent fans

**Upgradeability**
Minimum downtime in the event of rapid component upgrades
- Screw less access system design

**Leading workstation application certification**
Maximum compatibility and performance with customer-preferred applications
- Full support for ISV applications and easy integration into existing IT environments

**Easy and rapid hard disk changes**
Customer can access and replace hard disks screwless at the front
- Cold plug access

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# Components

| | |
|---|---|
| **Processor** | Intel® Core™ i3-2120 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2000) |
| | Intel® Core™ i3-2100 processor (2 Cores / 4 Threads, 3.10 GHz, 3 MB, Intel® HD Graphics 2000) |
| | Intel® Xeon® processor E3-1280 (4 Cores / 8 Threads, 3.50 GHz, 8 MB) |
| | Intel® Xeon® processor E3-1275 (4 Cores / 8 Threads, 3.40 GHz, 8 MB, Intel® HD Graphics P3000) |
| | Intel® Xeon® processor E3-1270 (4 Cores / 8 Threads, 3.40 GHz, 8 MB) |
| | Intel® Xeon® processor E3-1245 (4 Cores / 8 Threads, 3.30 GHz, 8 MB, Intel® HD Graphics P3000) |
| | Intel® Xeon® processor E3-1240 (4 Cores / 8 Threads, 3.30 GHz, 8 MB) |
| | Intel® Xeon® processor E3-1235 (4 Cores / 8 Threads, 3.20 GHz, 8 MB, Intel® HD Graphics P3000) |
| | Intel® Xeon® processor E3-1230 (4 Cores / 8 Threads, 3.20 GHz, 8 MB) |
| | Intel® Xeon® processor E3-1225 (4 Cores / 4 Threads, 3.10 GHz, 6 MB, Intel® HD Graphics P3000) |
| | Intel® Xeon® processor E3-1220 (4 Cores / 4 Threads, 3.10 GHz, 8 MB) |
| **Operating system** | |
| **Operating system** | Genuine Windows® 7 Professional 64-bit<br>Genuine Windows® 7 Professional 32-bit<br>Genuine Windows® 7 Home Premium 64-bit |
| **Operating system compatible** | Genuine Windows Vista® Business 64-bit<br>Genuine Windows Vista® Business 32-bit<br>Genuine Windows® XP Professional x64 Edition<br>Genuine Windows® XP Professional<br>Linux |
| **Operating system notes** | Red Hat® certification pending<br>Novell® certification pending<br>For some configurations third party drivers are currently not available or configuration restrictions may apply. |
| **Memory modules** | 2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM |
| | 2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM |
| | 4 GB (1 module(s) 4 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM |
| | 4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM |
| | 8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM |
| **Graphics add on cards (optional)** | Ultra-high-end 3D: NVIDIA® Quadro® 5000, 2.5 GB, 352 cores, PCIe x16, DL-DVI-I, 2x DP, DVI, VGA |
| | High-end 3D: ATI FirePro™ V7900, 2 GB, 1140 stream processors, PCIe x16, 4 x DP |
| | High-end 3D: ATI FirePro™ V7800, 2 GB, 1140 stream processors, PCIe x16, DL-DVI-I, 2x DP |
| | High-end 3D: NVIDIA® Quadro® 4000, 2 GB, 256 cores, PCIe x16, DL-DVI-I, 2x DP |
| | Midrange 3D: ATI FirePro™ V5800, 1 GB, 800 stream processors, PCIe x16, DL-DVI-I, 2x DP |
| | Midrange 3D: NVIDIA® Quadro® 2000D, 1 GB, 192 cores, PCIe x16, 2x DL-DVI-I |
| | Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, 192 cores, PCIe x16, DL-DVI-I, 2x DP |
| | Midrange 3D: ATI FirePro™ V5900, 2 GB, 800 stream processors, PCIe x16, DL-DVI-I, 2x DP |
| | Entry 3D: ATI FirePro™ V4800, 1 GB, 400 stream processors, PCIe x16, DL-DVI-I, 2x DP |
| | Entry 3D: NVIDIA® Quadro® 600, 1 GB, 96 cores, PCIe x16, DL-DVI-I, DP |
| | Entry 3D: NVIDIA® Quadro® 400 , 512 MB, 48 cores, PCIe x16, 1x DVI-I, DP |
| | Entry 3D: ATI FirePro™ V3800, 512 MB, 400 stream processors, PCIe x16, DL-DVI-I, DP |
| | Professional 2D: NVIDIA® Quadro® NVS 450, 512 MB, 2 x 8 cores, PCIe x16, 4 x DP |
| | Professional 2D: NVIDIA® Quadro® NVS 300, 512 MB, 16 cores, PCIe Gen2 x16, 2x DVI/VGA |
| | Remote Graphics: CELSIUS RemoteAccess Card, PCIe x1, 2x DVI-I |
| **Notes** | NVIDIA® Quadro® 5000, NVIDIA® Quadro® 4000 and ATI FirePro™ V7800 require CELSIUS W510 Power. |

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| **Hard disk drives (internal)** | SSD SATA, 256 GB, 2.5-inch, full disk encryption |
| | SSD SATA, 256 GB, 2.5-inch |
| | SSD SATA, 128 GB, 2.5-inch, full disk encryption |
| | SSD SATA, 128 GB, 2.5-inch |
| | HDD SATA III, 10000 rpm, 600 GB, 3.5-inch internal |
| | HDD SATA III, 10000 rpm, 300 GB, 2.5-inch |
| | HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch, business critical |
| | HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch |
| | HDD SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical |
| | HDD SATA III, 7200 rpm, 500 GB, 3.5-inch |
| | HDD SATA III, 7200 rpm, 320 GB, 3.5-inch |
| | HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical |
| | HDD SATA, 160 GB, 2.5-inch |
| | 512 GB, 2.5-inch |
| **Hard disk notes** | One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.<br>2.5-inch drives will be mounted in the 3.5-inch bays<br>24/7 ready (business critical HDDS required) |
| **Drives (optional)** | Blu-ray Disc™ Triple Writer |
| | DVD-ROM |
| | DVD Super Multi |
| | MultiCard Reader 20in1, USB 2.0, 3.5-Inch |
| | MultiCard Reader 20in1 USB 3.0 front con., 3.5-Inch |
| **Interface add on cards/components (optional)** | |
| | WLAN III, 802.11g/Draft-n (Windows only) |
| | USB 3.0 PCIe x1 |
| | Parallel Interface |
| | Gigabit Ethernet PCIe x1, DS |
| | FireWire PCI-Card IEEE1394 |
| | eSATA Interface |
| | Dual serial card PCIe x1, powered |
| | Dual serial card PCIe x1 |

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| **Base unit** | CELSIUS W510 | CELSIUS W510power |
| **Mainboard** | | |
| **Mainboard type** | D3067 | |
| **Formfactor** | ATX | |
| **Chipset** | Intel® C206 | |
| **Processor socket** | LGA 1155 | |
| **Processor quantity maximum** | 1 | |
| **Memory slots** | 4 DIMM (DDR3) ECC/non-ECC | |
| **Supported capacity RAM (max.)** | 32 GB | |
| **Memory frequency** | 1333 MHz | |
| **Memory notes** | In configurations with 4 GB and more the visible memory may be reduced to approximately 3.5 GB or less (for 32-bit operating systems) and configurations with 8 GB the visible memory may be reduced to approximately 7.5 GB or less (depending on system configuration). | |
| **LAN** | 10/100/1000 MBit/s Intel® 82579 LM | |
| **Integrated WLAN** | Optional (for Windows only) | |
| **Audio codec** | Conexant CX20642 | |
| **Audio features** | 5.1 surround sound, High Definition audio, Internal speaker supports audio playback | |
| **I/O Controller** | | |
| **Serial ATA total** | 6 | |

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| **I/O Controller** | |
| thereof SATA III | 2 |
| thereof eSATA | 1, optional |
| SATA RAID support | 0, 1, 10, 5 |
| **Interfaces** | |
| Audio: in (rear) | 2 |
| Audio: out (rear) | 1 |
| Audio: in | 1 |
| Audio: out | 1 |
| Internal speakers | 1 |
| USB 2.0 total | 14 |
| USB front | 4 |
| USB rear | 8 |
| USB internal | 1 + 1 |
| VGA | 1 (depends on processor, via DVI to VGA adapter) |
| DisplayPort | 1 (depends on processor) |
| DVI | 1 (depends on processor) |
| Serial (RS-232) | 1, (9 pin) |
| Mouse / Keyboard (PS/2) | 2 |
| Ethernet (RJ-45) | 1 |
| Parallel | 1, optional |
| eSATA | 1, optional |
| Interface Module notes | Anytime USB charge functionality |
| **Drive bays** | |
| Drive bays total | 8 |
| 3.5-inch internal bays | 4 |
| 3.5-inch external bays | 2 |
| 5.25-inch external bays | 2 |
| **Slots** | |
| PCI-Express 2.0 x16 | 1 x (312 mm) Full height |
| PCI-Express 2.0 x4 (mech. x16) | 1 x (210 mm) Full height |
| PCI-Express x1 | 2 x (312 mm) Full height |
| PCI (32-bit / 33 MHz) | 3 x (312 / 170 mm) Full height |
| **Graphics on board** | |
| Shared video memory | up to 1759 MB |
| TFT resolution (VGA) | 1024 x 768 pixel<br>1280 x 1024 pixel<br>1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1600 x 1200 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel |
| TFT resolution (DVI) | 1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel |

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| **Graphics on board** | | |
| **TFT resolution (DisplayPort)** | 1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel<br>2560 x 1440 pixel<br>2560 x 1600 pixel | |
| **Graphics features** | Dual display support<br>DirectX 10.1<br>HDCP support<br>Open GL® 3.0<br>For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows 7® only) | |
| **Graphics notes** | Tested resolutions, depending on display type additional resolutions and frequencies possible<br>Shared memory depending on main memory size and operating system<br>Resolution (color depth up to 32 Bit/pixel)<br>For TFT we recommend using 60Hz | |
| **Electrical values** | | |
| **Power efficiency note** | power supply efficiency (at 230V; 20% / 50% / 100% load) : 87% / 90% / 87% | |
| **Rated voltage range** | 100 V - 240 V | |
| **Rated frequency range** | 50 Hz - 60 Hz | |
| **Operating voltage range** | 90 V - 264 V | |
| **Operating line frequency range** | 47 Hz - 63 Hz | |
| **Max. output of single power supply** | 300 W (CELSIUS W510); 500 W (CELSIUS W510power) | |
| **Noise for standard configuration (HDD, ODD, FDD)** | | |
| **Noise emission** | According to ISO9296 (LpAm at bystander position) | According to ISO9296 (LpAm at bystander position) |
| **Idle mode** | 18 dB(A) | 18 dB(A) |
| **Office mode** | 18 dB(A) | 18 dB(A) |
| **Noise notes / description** | Actual noise emissions may vary depending on configuration | Actual noise emissions may vary depending on configuration |
| **Dimensions / Weight / Environmental** | | |
| **Dimensions (W x D x H)** | 186 x 481 x 430 mm | |
| **Operating position** | Vertical / horizontal | |
| **Weight** | 16 kg | |
| **Weight notes** | Actual weight may vary depending on configuration | |
| **Operating ambient temperature** | 10 - 35°C | |
| **Operating relative humidity** | 5 - 85 % (relative humidity) | |
| **Compliance** | | |
| **Product** | CELSIUS W510 | CELSIUS W510power |
| **Model** | ETNA-S-D3067 | MTB-D3067 |
| **Germany** | GS | GS in progress |
| **Europe** | CE | |
| **USA/Canada** | FCC Class B<br>cCSAus | |
| **Global** | RoHS (EU & China)<br>ENERGY STAR® 5.0<br>EPEAT® Silver (dedicated regions)<br>Medical EMC standard IEC60601-1-2 in combination with medical kit | RoHS (EU & China)<br>ENERGY STAR® 5.0 in progress<br>EPEAT® in progress (dedicated regions)<br>Medical EMC standard IEC60601-1-2 in combination with medical kit |
| **Compliance notes** | Energy Star compliance may vary depending on actual configuration | |
| **Compliance link** | https://sp.ts.fujitsu.com/sites/certificates/default.aspx | |

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| **Security** | |
| **System protection** | Kensington Lock support<br>Eye for padlock<br>Seal option<br>Intrusion switch<br>Optional: Integrated cabinet lock |
| **Audit proof protection** | Boot sector virus protection<br>Write protect option for the Flash EPROM<br>Embedded security (TPM 1.2)<br>Control of all USB interfaces<br>External USB ports can be disabled separately<br>Control of external interfaces |
| **Access protection** | Hard disk password<br>User and supervisor BIOS password<br>Optional: Access protection via SmartCard reader<br>Optional: SmartCase Logon+ |
| **Additional Software** | |
| **Additional software (optional)** | Recovery DVD for Windows®<br>Drivers & Utilities DVD (DUDVD)<br>CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) |
| **Additional software (included as a CD/ DVD)** | Norton Internet Security (incl. Firewall) |
| **Manageability** | |
| **Manageability technology** | DeskUpdate Driver management |
| **Manageability software** | DeskView 10.x client management including: |
| **DeskView components** | On/Offline remote client management<br>Detailed system inventory management and reports<br>BIOS Management<br>Remote power management<br>System notifications<br>Security Remote Control<br>DeskView Helpdesk Integration |
| **Supported standards** | WMI<br>BootP (made4you)<br>PXE |
| **Manageability link** | http://ts.fujitsu.com/solutions/it_infrastructure_solutions/manageability/featurefinder.html |
| **Input device / components** | |
| | Optical USB tilt wheel mouse |
| **Input devices (optional)** | Optical USB/PS2 tilt wheel mouse<br>Space Explorer USB<br>Keyboard |
| **Warranty** | |
| **Standard Warranty** | 3 years (depending on country) |
| **Service level** | On-site Service (depending on country) |
| **Maintenance and Support Services - the perfect extension** | |
| **Recommended Service** | 5x9, Response Time: Next Business Day |
| **Service Weblink** | http://ts.fujitsu.com/Supportservice |

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# More information

## Fujitsu platform solutions

In addition to Fujitsu CELSIUS W510, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

**Dynamic Infrastructures**
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

**Computing Products**
www.fujitsu.com/global/services/computing/

**Software**
www.fujitsu.com/software/

## More information

Learn more about Fujitsu CELSIUS W510, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.fujitsu.com/celsius

## Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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